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# Journal of the Society of Arts.

FRIDAY, OCTOBER 5, 1855.

## MEETING OF COUNCIL.

WEDNESDAY, 26TH SEPTEMBER, 1855.

The following Institution has been taken into Union since the last announcement:—

399. Fenton (Staffordshire Potteries), Literary and Scientific Institution.

## PREMIUM LIST.

Members who visited Paris and others are requested to be good enough to communicate to the Secretary any suggestions which may have occurred to them as desirable for the Society's forthcoming Premium List.

## SOCIETY'S VISIT TO PARIS.

The following name was omitted from the list of Representatives nominated by the Institutions given in last week's *Journal*:—

Hugh Dunn, Darlington Mechanics' Institute.

## PARIS EXHIBITION.

### PALAIS DES BEAUX ARTS.

On Thursday, the 6th of September, Messrs. F. S. Cary and J. Leighton, at the request of the Council, showed a party of the Members the Palais des Beaux Arts. The following notes have been kindly furnished for the *Journal* by the former gentleman:—

The present Paris Exhibition, which is considered to be superior in many respects to our Great Exhibition of 1851, is most remarkable for the collection of modern pictures from all nations.

We have been accustomed to see the works of the old masters brought together from different countries, and were thus enabled to judge of the merits and style of all the early schools. It was suggested to the Royal Commissioners of the Exhibition of 1851, that they might admit modern paintings to the Crystal Palace; but they shrank from the greatness of the task. It has, therefore, been left for the Emperor Napoleon (whose word alone commanding anything to be done is sufficient to ensure its being accomplished) to form the finest collection of modern pictures that the world has ever seen.

In a short visit it would be impossible to take a minute view of such a vast gallery, containing, as it does, more than 5,000 works of art. We must, therefore, be contented with a glance at those specimens which are the most striking examples of the talent of each country.

The French artists occupy half the Exhibition, and have as great a number of works as all the other nations put together. Owing to this circumstance, there are more pictures of an inferior class to be found in the French department than almost in any other. At the same time the great space allotted to them has afforded an opportunity for their painters of large historical pictures to appear to the greatest advantage; and although they cannot be compared with the old Italian masters, there can be no question as to their being superior to all modern schools in this class of art.

Ingres and Horace Vernet have each a large room to themselves; the works of the former, learnedly clever, hard, and repulsive, unvaried in style and execution, are greatly admired by French artists, and I believe by the

people in France; but as I am unable to appreciate their merits, I shall pass them all by, with the exception of the cartoons for stained glass windows, which are most delicately drawn, and are the best adapted designs for the purpose that I have ever met with. They are flat and distinct in treatment, and grand in composition.

The works of the latter, Horace Vernet, are more easily understood. They are addressed to the multitude, and the multitude know what they mean. The "Smala" is a *real* charge of cavalry surprising a camp of *real* Arabs, who are determined to fight to the last in defence of their women and their treasure. The horses, foreshortened, dash completely out of the picture; the landscape and sky are clear, open, and real, not made up of smoke and mist, but represented with that broad daylight effect with which Roberts would paint an eastern view, only without his sweetness of tone, Vernet's intention in this picture being rather to astonish than to please. In the same room is to be seen his "Boar Hunt," the "Return from the Lion Hunt," the "Mazeppa," "Rebecca at the Well," and many paintings of a variety of subjects, which show his power of executing pleasing cabinet pictures.

The upper part of the two great rooms are principally occupied by large historical pictures from the Luxembourg, and other galleries in the neighbourhood of Paris. Here are Delacroix's works; gorgeous in colour, mild in composition, and doubtful in drawing. The Dante and Virgil in the boat is a more careful picture, deserving the reputation it has earned; the colour rich and pleasing to the eye, yet suited to the awful subject, and the drawing not objectionable. Biard's dramatic sea pieces, Cogniet's "Massacre of the Innocents," and "Death of Tintarets Daughter;" Gerome's "Augustine Age;" the "Pillory," by Glaize; "Vive l'Empereur," and "Victims of the Reign of Terror," by Muller, and many more in that huge style for which our neighbours are so famous.

It is very remarkable, the number of subjects of horror and bloodshed which thrust themselves upon one's notice in the French department of the Exhibition, more especially as they are a pleasure-seeking people, loving happiness, and easily pleased, cruelty being the opposite of their nature. What reason is there then for the French artists dwelling so much on the painful side of human nature? The French people cannot require these disgusting historical facts to be perpetuated for their enjoyment, or they would not collect in such crowds around our happy English pictures. Mulready, Horsley, Millais, Goodall, Webster, Frith, Leslie, &c., evidently delight them. A priest, with an unusually attentive congregation around him, is generally to be seen explaining points of interest in these pictures; he never fails to notice how, in Mulready's picture of the "Wedding Gown," the linendraper puts on his most polished manner to the beautiful bride, assuring her that the material she is about to buy is of the very best manufacture, while the countenance of his wife in the background reflects the stupidity of her customer. At first sight of Frith's picture, everybody laughs, with Lady Mary Montague, until the figure of the afflicted poet is seen, when a feeling of compassion is excited. Leslie's dry humour, Webster's fun, Stone's love, and Millais' pathos, interest the learned, as well as the unlearned, far more than all the French horrors. In the English pictures whatever would shock the feelings is either subdued or omitted. Maclise, in the "Ordeal by Touch," has placed the murdered man in the background. Pickering's "Harold" is full of deep sentiment, without being gore stained. In Knight's "Shipwreck" nobody is drowned. Cope soothes the "Death of Lear" with sweet music, and Eastlake's "Spartan Youth" is victorious without bloodshed. The Italian painters never represented disgusting incidents until the time of the Caracci, when art began to decline in Italy. That this endeavour to excite unpleasant feelings is not necessary for the French people, is shown by the success of Delaroche, Scheffer, and some other artists, who do not exhibit, but whose works are well known and highly appreciated in France. Dela-

roche's painting, exhibited last year at the French exhibition in Pall Mall, of the assassination of the Duke de Guise, is an instance of the interest he can impart to a dreadful subject without shocking the feelings.

If we turn our attention to the cabinet pictures in the French school, we shall find many beautiful paintings of landscape, flowers, cattle, portrait, and common-life subjects, which are in general painted in a more bold and vigorous manner than we are accustomed to see in England. Amongst these may be mentioned Decamp's Eastern courtyards, with strong moonlight effects and deep shadows; Troyon's cattle, particularly the "Yoke of Oxen going to Work,"—the quiet motion of the beasts and the still morning light is wonderfully fine; Beaumont's "Gleam of Sunshine;" Benouville's picture of "St. Francis Blessing the City of Assise," well known by a beautiful lithograph; St. Jean's "Fresh Roses;" Ziem's sea views; Roë Bonheur's charming "Hayfield;" a conscientious imitation of nature, notwithstanding the peculiar moonlight effect of deep shadow; Scheffer's manly portraits; and Winterhalter's courtly dames.

Amongst the very small pictures are some most exquisitely-finished little paintings by Bellangé, Chavet, Plassan, and Meissonier, artists highly and deservedly esteemed in France, but not yet well known to the British public. Nothing gross or offensive is to be seen in their works, which are mostly of a playful and humorous character, exhibiting a true relish for whatever is agreeable in nature, both as to colour and form, and in some instances equalling the old Dutch masters for delicacy of pencil.

The Belgians come out with great strength, and like the French, take a wide range in their class of subjects; indeed, they appear to be formed rather by the modern French school than by the early Flemish painters. Their great historical works are painted in that free off-hand sort of manner as if art to them had no difficulties. Verlat's "Assault of Jerusalem" is an instance of more care and thought. "The Village School," by De Braekeleer, Alfred Stevens' domestic subjects, Madou's fetes, and Piéron's landscapes, are works of great merit. Louis Robbe's "Landscape and Cattle" will bear comparison with the best pictures in the Exhibition, though not so bold as Troyon, nor so delicate and tender in tone as Cooper, yet uniting qualities belonging to each. Willems has three very fine cabinet pictures; "Coquetry," and the "Interior of a Silk-mercer's Shop," are excellent in drawing, character, and colour. His works, and those of Verboeckhoven, the famous animal painter, approach nearer to perfection than anything else in the Belgian school.

The Germans have some well-drawn and finely-composed pictures, though mostly dull and heavy in colour. Their Scripture-pieces are treated with more purity and taste than the large French works of the same subjects. "Christ predicting the Fall of Jerusalem," by Begas; Hildebrandt's "Winter;" Kaulbach's compositions, and Cornelius's cartoons, are all worthy specimens of German art.

#### COMMISSIONERS OF PATENTS.

##### ABSTRACT OF THE REPORT FOR 1854. DATED 23RD JULY, 1855.

The Commissioners of Patents appointed under the Patent Law Amendment Act, 1852 (15 & 16 Vict., c. 83), in compliance with the terms of the third section of that Act, make the following Report of all their proceedings under and in pursuance of the same, for the year 1854, in continuance of their First Report of proceedings for 1852-3, dated the 31st July, 1854.

The number of applications for provisional protection recorded within the year 1854 was 2,764; the number of patents passed therein was 1876; the number of specifications filed in pursuance thereof was 1828; and the number of applications lapsed or forfeited, the applicants having neglected to proceed for their patents within the six months of provisional protection, was 888.

The number of applications recorded within the first six months of the current year (1855) was 1,493, showing a probable increase as compared to the number of the year 1854.

All the provisional, complete, and final specifications filed in the office upon the patents sealed under the Act, from the 1st October, 1852, to the 30th June, 1855, 4,897 in number, have been printed and published with lithographic outline copies of the drawings accompanying the same. The prints are sold to the public at the Patent Office, and each specification is printed and published within three weeks of its deposit in the office.

The provisional specifications filed in the office within the same period and lapsed and forfeited, 2,290 in number, have also been printed and published.

Printed certified copies of all the specifications filed in the office up to the 30th June, 1855, as also certified copies of patents and of the record book of assignments of patents and licences, with copies of such assignments and licenses, have been sent, in continuation, to the office of the Director of Chancery in Edinburgh, and the Enrolment Office of the Court of Chancery in Dublin, pursuant to the Act of 1852, and the Act of the 16 and 17 Vict., c. 115.

The following is a list of the publications made by the Commissioners since the commencement of the Act (1st October, 1852). The whole are printed in imperial 8vo., and the specifications alone form 170 vols. of letter-press, and the like number of vols. of lithographic drawings.

#### INDEXES OF PATENTS.

1. Titles of Patents of Invention (chronologically arranged). From March 2, 1617 (14 Jas. I.) to October 1, 1852 (16 Vict.) 2 vols. (1554 pages).
2. Alphabetical Index of Patentees of Inventions, for the same period. 1 vol. (647 pages.)
3. The Subject-Matter Index of Patents, for the same period. 2 vols. (970 pages.)
4. The Reference Index of Patents; pointing out the Office in which each enrolled Specification of a Patent may be found; the Books in which Specifications, Law Proceedings, and other subjects connected with Inventions have been noticed or reported; also such of the Specifications of Patents granted since the 14th of James I. as have been published by the Commissioners. 1 vol. (681 pages).
5. An Appendix to the Reference Index of Patents of Invention, containing abstracts from such of the early Patents and Signet Bills as describe the nature of the Invention, and on which Specifications were not enrolled.
6. The Chronological Indexes of Applications for Patents and Patents Granted from the 1st October, 1852, to the 31st December, 1853. 1 vol. (258 pages.)
7. The Alphabetical Indexes for the same period. 1 vol. (182 pages.)
8. The Subject-Matter Indexes for the same period (in course of preparation, and to be published before the end of the current year).
9. The Alphabetical Index for the year 1854. (120 pages.)

#### SPECIFICATIONS.

1. The series of 4,746 Final Specifications, 151 Complete Specifications, and 2,290 Provisional Specifications lapsed or forfeited, the applicants having neglected to proceed for their Patents, together with the Disclaimers and Memoranda of Alterations filed under the Act from the 1st October, 1852, to the 30th June, 1855.
2. Fire-arms, Projectiles, &c. The entire series of Specifications and Drawings on this subject, from the earliest period to the present time.
3. Reaping Machines. The entire series of Specifications and Drawings on this subject, with an Appendix.
4. Structures and Apparatus employed in the Combustion of Fuel and in connection therewith. The entire series of Specifications and Drawings on this subject.

5. Propulsion of Vessels, &c. The entire series of Specifications and Drawings on this subject from the earliest period to the present time.

6. A Miscellaneous Collection of Specifications of Patents enrolled under the old law; printed from time to time to be used in evidence in courts of law.

#### JOURNAL.

The Commissioners of Patents Journal, from its commencement, January, 1854, to the present day, the numbers for 1854 being bound in one volume, with an Index.

This Journal is published on the evenings of Tuesday and Friday in each week, and contains the following information:—

1. Grants of Provisional Protection for Six Months.
2. Inventions protected for Six Months on Deposit of a Complete Specification.
3. Notices to Proceed for Patent.
4. Patents Sealed.
5. Patents Extended.
6. List of Foreign Patents.
7. Official Advertisements and various Notices.

The balance sheet (1854) shows an expenditure of £42,208 6s. 9d. on account of printing and lithographic drawing, as compared to £10,831 10s. 2d. expended in the year 1853; the explanation of the apparent excess in 1854 is, that the work of printing the Specifications of 1852-3 was not commenced until September, 1853, and that the arrear was overcome in the course of the year 1854. The sum of £53,039 16s. 11d. having been expended in printing, from the 1st October, 1852, to the 30th December, 1854, 2 years and one-fourth of a year, is equal to an annual expenditure of £23,573 5s. 4d.

The expenditure for the current year (1855) is estimated at £30,000, of which sum it is calculated not more than £12,000 will be expended in printing Specifications, Indexes, &c. of the year, leaving £18,000, or thereabouts, to be expended in the work of printing the Specifications enrolled previously to the Act of 1852.

The old Specifications number 12,977; of these, 1,526 have already been printed, and as it is proposed to print at the rate of 2,000 in each succeeding year, the work will be completed in six years or thereabouts, and the annual expenditure of £18,000 on this account will then cease.

The contract prices for lithographic printing having been lowered, and the number of copies now printed of each Specification being 250, instead of 500 as formerly, the expenditure in respect of printing has been considerably reduced.

The work now in progress in the printing of the old Specifications, is the whole subject of steam-engines, those applicable to the propulsion of vessels having been already printed; when this subject shall have been completed, it is intended to commence the subject of the machinery for the manufacture of textile fabrics.

The Commissioners have transmitted the prints of Specifications, Indexes of Patents, and all other papers printed by them to the chief magistrates and corporations of the principal towns within the United Kingdom, to be placed in such public free libraries as may now exist, or may hereafter be formed for the purpose, upon the following conditions:—

A librarian to be appointed to take charge of the works, who shall be held answerable for their safety and condition.

The works to be deposited in a public free library of the town, and to be open to the inspection of the public at all reasonable hours.

No charge to be made, or fee of any kind to be taken, on any pretence whatsoever, for the inspection, reading, or taking notes from any of the works.

No work to be lent to any person, or removed from the library, except for binding, or necessary repairs.

The Commissioners recommend that the letter-press part of the Specifications be bound in volumes apart from the drawings, and the drawings be mounted on cloth, and also bound in volumes.

The prints have been received by the several towns,

subject to the above-mentioned conditions, and in many of the large towns the gift has laid the foundation of free libraries, no such libraries having previously existed; the prints in continuation will be forwarded every succeeding Monday.

The Commissioners have established a public free library of research within the Patent Office in Southampton-buildings. Convenient rooms are provided for the purpose, and the library is open to the public from ten to four every day.

#### RULES AND REGULATIONS.—CLERKS AND OFFICERS.

No additional rules or regulations were made, or clerks or officers appointed under the Act within the year 1854. Appended is the following

#### BALANCE SHEET OF INCOME AND EXPENDITURE FOR THE YEAR 1854.

RECEIPTS.	£	s.	d.
In stamp duties in lieu of fees.....	53,030	4	2
By sale of prints of specifications, indexes, &c. ....	834	14	4
Surplus income on balance of accounts to the end of the year 1853 .....	25,311	15	9
	£79,176	14	3
Surplus income .....	£15,672	5	9

PAYMENTS.	£	s.	d.
Fees to the law officers of England, their clerks, and the clerks of the law officers of Scotland and Ireland .....	8,649	6	0
Salaries of officers and clerks in the Commissioners' Office .....	3,686	5	4
Compensations .....	4,537	0	0
Current and incidental expenses in the Commissioners' Office .....	3,342	15	11
Estimated cost of stationery supplied by Her Majesty's Stationery Office .....	590	14	6
Rent of offices and library .....	490	0	0
Messrs. Eyre and Spottiswoode, for printing specifications of patents, indexes, &c. ....	14,924	3	1
Lithographer's bills for drawings accompanying specifications .....	14,822	6	0
Estimated cost of paper supplied to printer and lithographer by her Majesty's Stationery Office .....	12,461	17	8
	£63,504	8	6

#### PUBLIC LIBRARIES ACT OF 1850.

The following notes on the operation of this Act are published, giving the information asked in the letter of Mr. W. Lane Joynt in the last number of the *Journal*, and it is hoped they may be found useful to individuals desiring to bring into operation the Act of last session.

I. The Act has been put into operation in the following cities and towns:—

	Votes.
1. Bolton .....	662 for; 55 against.
2. Cambridge .....	... ...
3. Kidderminster.....	... ...
4. Liverpool .....	Under Special Act, no poll required.
5. Manchester .....	3,962 for; 40 against.
6. Norwich .....	... ...
7. Oxford .....	596 for; 72 against.
8. *Salford .....	Under Museums Act, no poll required.
9. Sheffield .....	838 for; 232 against (2nd poll).
10. *Warrington .....	Under Museums Act.
11. Winchester .....	361 for; 13 against.

The polls by which the Act was adopted in each town respectively, are shown by the figures appended. Liverpool has its special "Library and Museum Act," passed in 1852. The libraries of \*Salford and \*Warrington are attached to museums established under the "Museums Act" of 1845, which Act was repealed by the Act of 1850, and those institutions are now maintained under the powers and provisions of the Act last-named.

At Birmingham and at Exeter, polls have been taken under the Act, and its adoption *negatived*, in the former case by 534 votes against 363; in the latter by 853 votes against 118.

By the town-councils of Aberdeen, Bristol, Newcastle-on-Tyne, and Preston, as well as by the Common Council of London, resolutions approving of the principle of the Act have been adopted, and committees appointed to report as to the steps to be taken to bring it into operation. Similar steps are, it is stated, in contemplation in several other towns, but are delayed in hope of the passing of the amended Bill. (At King's Lynn and St. Helen's free libraries have also been established, which are *partially* supported out of rates under local powers).

II. The free libraries at Bolton, Liverpool, Manchester, Oxford, Salford, Warrington, and Winchester, are in active operation, and contain in the aggregate nearly 90,000 volumes. Those of Cambridge and Sheffield are on the eve of opening,—the former with 2,000 volumes

to start with; the latter with 3,100. At Norwich a new building is now in course of erection, which is to receive its free library.

III. The produce of the rate by which these various institutions are supported is at present (under the existing limit of one halfpenny in the pound, except in the case of Liverpool, where the limit is one penny) as follows:—

1. Bolton .....	285
2. Cambridge .....	...
3. Kidderminster .....	...
4. Liverpool .....	4,600
5. Manchester .....	1,980
6. Norwich .....	...
7. Oxford.....	150
8. Salford.....	700
9. Sheffield .....	650
10. Warrington .....	90
11. Winchester.....	...

IV. The practical working of the libraries thus established, and the degree of success with which their object has been thus far attained, will perhaps be sufficiently illustrated by the subjoined tabular view of the operations of the four libraries of Salford, Manchester, Liverpool, and Bolton (all of them embracing distinct departments for reference and for circulation), the substance of which may thus be briefly stated:—

Free Public Libraries of	Amount of Money raised by subscription.	Amount of Money raised by rate or granted by Town Council.	Total amount of money raised.	Number of Volumes of Books in Library,		Total number of Volumes in Library.	Number of Volumes issued.		Total number of Volumes issued up to date of last report.
				By Gift.	By Purchase.		To readers in the Library.	To Borrowers from Lending Collections.	
	£ s. d.	£ s. d.	£ s. d.						
1. Salford, 1850	6,470 10 0	5,090 2 5	11,560 12 5	5459	7121	12,580	{ 160,218, during 5 years.	{ 13,815, open during portion of 5 years.	{ 174,033, during 5 years.
2. Manchester, 1852..	12,823 10 0	3,852 11 2	16,676 1 2	8155	19,789	27,944	{ 168,887, during 2½ years.	{ 204,861, during 2½ years.	{ 373,548, during 2½ years.
3. Liverpool, 1852 .....	7,389 2 10	17,030 13 11	24,419 16 9	{ About 5,000 vols.*	{ About 20,195 vols.*	25,195	.....	.....	{ 246,461, during 2 years.
4. Bolton, 1853	3,195 4 2	855 0 0	4,050 4 2	1651	11,541	13,192	{ 27,288, during 1 year.	{ 61,184, during 1 year.	{ 88,472
Total in four towns of Lancashire since 1850.]	29,878 7 0	26,828 7 6	56,706 14 6	20,265	58,646	78,911	.....	.....	882,514

\* The statement in the Liverpool Reports and other documents received are not quite precise on this point, but these numbers are nearly accurate.

In these four towns, and within an average period of three years, a sum of £26,828 has been levied by rate or granted by town-councils, under the Acts named, and a further sum of £29,878 raised by voluntary subscriptions; nearly 80,000 volumes of books have been inalienably devoted to public use; every such volume has, on the average, been actually used 11 times; and provision, both certain and permanent, has been made for the replacement, from time to time, of all books that may be worn out in public service.

V. One of the best results which has attended the establishment in Lancashire of town libraries supported by rate is the union of *all* classes, not only in the efforts which have been necessary to their foundation, but by subsequent mutual participation in their advantages. They are emphatically libraries for the city or town which supports them, and not for any one section of its population. Under the amended Act, now in progress through Parliament, this will become increasingly apparent, by the enlarged means which will be afforded for the acquisition of books adapted to the requirements of all classes, and such as, in most towns, have been attainable only by private purchase.

VI. Shows how important to the efficient working of the Libraries Act is the clause now introduced into the Act of last session, enabling the monies raised by rate to be ap-

plied to the purchase of books (a power already possessed by Liverpool under its special Library Act, and by Manchester, in virtue of a clause inserted in a recent Improvement Act). Under circumstances which, in some respects, were very favourable, only about 20,000 volumes of nearly 80,000 have been obtained by gift. It appears highly probable that, in the course of time, the good working of the Libraries Act may become an additional inducement to liberal-minded and reflecting men to *bequeath* their libraries to communities in whose welfare they are interested; but true lovers of books will rarely in their lifetime part with those that are worth keeping.

#### LIGHTING.

Mr. John Longbottom, of Leeds, has recently patented some improvements in combining atmospheric air with hydro-carbons for the purpose of producing light and heat. The invention consists in causing the atmospheric air, which is to be combined with hydro-carbons for the purpose of light and heat, to be passed in contact with pumice stone, or other porous substance, saturated with caustic potash, and then to be passed in contact with sulphuric acid, in order to free the air from water. The

dry and pure air is then passed in contact with the hydro-carbon to be used, which, combining with the air, produces a compound suitable to be used in place of gas. The air is propelled through the process by bellows or blowing apparatus, and caused to pass into, and in contact with, the hydro-carbon employed in a divided or thin stream by means of cups and floats; the combined matters then pass into a gasometer, from which they are supplied for use in like manner as gas. By passing atmospheric air through a bath of pumice stone, or any other suitable porous substance saturated with caustic potash, for the purpose of absorbing the carbonic acid gas contained in the air, and then through a bath of pumice stone, or any other suitable porous substance, saturated with sulphuric acid, for the purpose of absorbing any watery particles or aqueous vapours, and thus thoroughly desiccating or drying the air, and fitting it for the absorption of the vapours of hydrocarbons, it is said to be rendered highly luminiferous, and well suited for all the purposes of which illuminating gas is susceptible.

#### THE SALFORD PUBLIC LIBRARY AND MUSEUM.

At a recent meeting of the Salford Town Council, the following report was presented by the Public Park Committee, in reference to the library and museum established in Peel-park:—

"The committee beg to call the attention of the Council to the following particulars, showing the progress of the library and museum for the last four months. The additions to both departments of the library, by purchase and donation, are 556 volumes, exclusive of the specifications of patents which have been presented by the commissioners to the library, and amount to 720 in number. The average daily issue of books from the reference library has been 240, and in the total issues it will be seen that there has been a steady increase, as well as an improvement in the character of the works given out. The monthly issues have been as follow, for the four weeks ending on the days named:—June 30, 6,405; July 28, 5,168; August 25, 5,680; September 30, 7,319; total, 24,572. In the corresponding periods of previous years the numbers were, in 1854, 22,704; in 1853, 5,303; in 1852, 11,177; in 1851, 9,178; in 1850, 7,671. The classes of literature into which the volumes issued as above are divided are: Theology, 676; jurisprudence, 124; history, 3,829; science, 4,042; novels, 7,261; and general literature, 8,637. The committee can assure the council that the borrowers of books take every possible care of them, and that none have been lost since the last report. In consequence of an application by the privates of the 25th regiment, stationed at the Salford Barracks, to be permitted to have books from the lending library, your committee have made the necessary alterations in the rule, to enable them to comply with their request, and the rule is now in full operation. (All the military stationed at Manchester in future will, therefore, have full access to this excellent institution.) The total issues, from the commencement of the library, in the lending department, have been: Books, 49,295; cards, 1,525; vouchers, 2,589. The ages of the applicants have been as follow: 995 under 20, 614 under 30, 287 under 40, 126 under 50, and 76 above 50. The female applicants have numbered 491; youths 371; workmen 1,117; clerks, &c., 536; others, 74; residents in Salford, 2,340; in Manchester, 249. In the 17 weeks ending September 29, there were issued 461 books on theology, 2,249 on history, 1,056 on science, 11,419 on general literature; making a total of 15,185. The total issues from both departments of the library, during the four months, is 39,757, giving an average of 397 daily. The attendance in the reading-room has averaged 366 daily. The museum continues to be very attractive, not only to the inhabitants of the borough, but to those of the

adjoining towns; and it is very gratifying to the committee to find the estimation in which it is held by the public generally. The committee have to notice the presentation to the museum, by Joseph Brotherton, Esq., M.P., on behalf of the subscribers, of a valuable portrait of William Lockett, Esq., the first mayor of the borough, which cannot fail to be highly interesting to the inhabitants generally, on account of the satisfactory manner in which he discharged the duties of his office as mayor, and the good opinion entertained of him by his fellow-townsmen. The total number of visitors to the museum for the last four months is estimated at 206,900 visitors, being a daily average of 2,430."

#### Colonial Correspondence.

##### THE COMMERCIAL RESOURCES OF PORT NATAL.

Feniscowles, near D'Urban, Port Natal, South Africa.

SIR,—Several numbers of your most useful *Journal* have been forwarded to me, and I have perused with especial interest the number for February 9th, 1855, relating to Messrs. Dickins and Chadwick's invention for reeling from the cocoon, and the former gentleman's paper upon the Commercial Consideration of the Silkworm. Several varieties of the mulberry have been introduced into this colony. I give the preference to the white, as it is not only of most rapid growth, but the size of the leaves renders the feeding the worm a much easier operation and quicker than when fed on the smaller sorts. From its rapid growth the leaf is soft and tender, and the worm thrives well upon it. Last year I was so fortunate as to be able to obtain a few eggs,\* from which I raised about 400 worms. These I brought to maturity, and I anticipate having this season from 30,000 to 40,000. The whole of these it is my intention to increase from, so as to form a supply not only for myself, but for distribution. I have induced a number of my friends and poorer neighbours to put in mulberry cuttings, with a promise to supply eggs, and either buy or find a market for their cocoons. Thus, sir, you will perceive the great utility and benefit to the community that arises from the publishing the transactions of your Society. Hitherto Natal has suffered from its inhabitants not knowing what to turn their attention to, ignorance of its climate, seasons, and capabilities. These, I am happy to say, are now becoming better understood, but it has been a bitter experience, most having lost their all for the lesson. I may say for myself, my original intention in settling here was to produce cotton for the home market. Three years' trial resulted in a loss of about £600. The plant grows too luxuriantly, the pod bursts irregularly, and the picking extends over too long a period; moreover the Kafirs detest the work. I have since tried the China grass; it grows luxuriantly, but here again I was disappointed in not having the requisite machinery, and not being able to procure labour to do it by hand. I send you a small sample, but it is rendered weak by, I think, being too long in the water, and other objections, as described in the paper "On the Preparation of Fibrous Substances," Vol. II., No. 101, October 27th, 1854. It is, however, sufficient to show that the article can be grown here. The plantain and bananas thrive luxuriantly. We have a wild description of plantain, bearing a flower, but I have seen no fruit. The Kafirs obtain a very strong thread from it, which they use for sewing their baskets and mats. A wild palm leaf produces material for the former, which also works up into an excellent material for hats, &c. The woods are stored with many products that

\* I must mention that five years since I endeavoured to introduce them, and brought out several bottles containing eggs, but all unfortunately hatched on the voyage.

may at sometime become valuable. One tree bears a nut in great abundance, very astringent, and used here in tanning, and for making ink. Another produces a remarkably fine oil, very clear, and particularly free from impurities. The sarsaparilla is a perfect weed, as is also the castor-oil tree. The mimosa tree is in large quantities : its bark is valuable tan ; the gum I will say nothing about, as I sent several tons home, and, like the gentleman with his first bale of cotton, was advised to send no more. The same result happened with a shipment of vegetable ivory nuts. The clays of this country are very peculiar, and well worthy of attention. In the Illovo district I have seen pipe-clay as pure as any housemaid uses for the hearthstone, also yellow, red, and blue clays; a black used by the natives for their grots is very tenacious, almost the consistency of pitch. I am making a collection of such things as come under my notice, and will send them by the first private opportunity to save expense, hoping that although they are of no great intrinsic value they may in the hands of your Society lead to good, and be ultimately beneficial to this colony, as well as to our mother country. Pine-apples do remarkably well ; I sold upwards of 4,000 last year, shipping them to Algoa Bay and the Cape. I was much distressed at having to throw away so much valuable material as the old stocks contained in the way of fibre. Would any of your numerous readers suggest a mode whereby I might be enabled to save this waste, and be able to produce a marketable commodity at a remunerative price. Constant and continued labour is difficult to obtain, and for some things more than others. In No. 106, Vol. III., Dec. 1, 1854, Mr. P. L. Simmonds mentions a machine, the invention of the Honourable Frances Burke, for preparing the fibre of the plantain, at the cost of about £8. I should be most glad to become not merely the purchaser of one for myself, but I may safely say I could part with many to the mutual advantage of the patentee and our own poor farmers. I trust I shall not be considered as taking an undue liberty if I request that through your aid our wants may become known, and that I may be put *en rapport*, as the mercerists would say, with the proper parties.

Again, reverting to silk, I observe Mr. Dickins to say, that even heavy freights, £30 per ton, he says, would not prevent a profit upon the importation of cocoons. I should wish to be informed what price I may hold out to the producer per lb. for cocoons dried and ready to pack for shipment. I have sent all the empty cocoons of last year unpicked, from which some opinion may be formed and given as to their value in the home market. This colony may probably be too young at present to introduce heavy and expensive machinery for silk. At the same time, considering the great weight the insect bears to the silk, freight on which would have to be paid (rather dear manure, or food for ducks and geese), I would suggest, as most advisable, to bring the machinery to this country, with suitably trained hands to work it, and so save the loss of freight for mere waste. If this suggestion meets the eye and approval of parties interested in the matter, I will, upon a satisfactory reference being given, place a small estate I have, distant say about six miles from the Port, at the disposal of such party or parties, and plant about eight or ten acres with the mulberry, ready for a commencement. I write this more as a motive to set the trade on foot, and as early as possible produce an article of export for the good of the colony. I merely name my place, Briarcliff, from its having been under cultivation now for some five years. It was on this farm where the Messrs. Ecroyd grew cotton, and sent in their reports from, to the Manchester Chamber of Commerce. When they left the colony I became the purchaser. There is no scarcity of land, so that any parties wishing to try it can easily purchase suitable land, at not very outrageous prices, say from 10s. to £10 per acre, according to the locality and distance from town. Land is becoming daily more valuable, now that sugar operations are becoming

so extensive. I have enclosed a sample of some of my own sugar, grown and manufactured at Springfield, where I have some 150 acres in course of cultivation. Several mills and machinery are now being erected, and others ordered and coming out. By next year at this time there will be about 800 acres in cane in the colony. I alone this year shall have from 50 to 60 tons. This will find a better market on the spot than shipping home, especially at the high rates of freight, £5 10s. It is a thousand pities some good botanist is not sent out ; the whole country teems with valuable products—herbs, balms, and every variety of most lovely flowers—that would be highly prized at Kew or Chiswick. I must, before bringing my letter to a conclusion, apologise for so far intruding upon your valuable time, and I trust my plea of doing some little good to others as well as myself will be accepted.

I am, sir,

Your obedient servant,

J. L. FEILDEN.

P.S.—I hope to send off a small box to your care, per *Intrepid*, to sail shortly. [This box has not yet arrived.—Sec.]

## Home Correspondence.

### WROUGHT-IRON GUNS.

SIR.—It is remarkable that in the present day so much skilful workmanship and practical knowledge should have been bestowed by Mr. Dundas upon the original rude mode of constructing cannon. A mere assemblage of staves and hoops, unless the former be welded together, a process now proved by a costly experiment to be impracticable on a large scale, can only produce a barrel or tube of which the tenacity or strength is alone due to the hoops, and not to the staves, however skilfully planed up and put together.

Tubes intended for horizontal or point-blank fire were not, however, the first form of projectile engine constructed for the use of gunpowder. The mortar, or *Bombarda* of the old writers was the first form introduced, now acknowledged to be the best, an adoption which naturally followed the transition from the *Catapultæ* and *Balistæ* of ancient artillery to those machines intended for the use of the newly-discovered powder. The *Bombarda* was merely a hollow receptacle of cast brass, constructed to throw stones of great weight into the enemy's camp or fortress, precisely as the *Catapultæ* had hitherto done. The *Arcobusio*, literally *Tubular Bow*, was the original type of cannon, and when they came to be required of large calibre, were made of welded staves and hoops, of which there are numerous examples extant.

In regard to modern cast-iron guns it would appear that English cast-iron produced by means of coke is unfit for the purpose, at least in comparison with Russian iron produced from charcoal furnaces. Coke-iron has certainly the great advantage of making beautiful castings with exceedingly sharp angles, a beauty of which charcoal iron is incapable, but the latter is vastly superior in toughness, and therefore far more suitable than coke-iron as a material for cast-iron guns. Tin-plate workers are perfectly aware of the great difference between plates made from charcoal or coke-iron.

It is utterly impossible for us, from the want of fuel in England, to produce charcoal iron in any quantity, but by a combination of wrought steel and ordinary cast-iron or brass, we may produce artillery very superior to the cast-iron guns of this or any other country.

In your *Journal* No. 108, p. 78, will be found the description of a simple and practicable mode of constructing cast-iron or brass guns with a soft steel bore, but it unfortunately happens that in this country no process that may be published without being previously secured by exclusive rights to which publication is an effectual bar, can be taken up by our English manufacturers, who

could not in such case secure to themselves exclusive profits upon a process open to all.

I am, sir, yours, &c.,  
CIVIL ENGINEER.

September 26th, 1855.

#### DECIMAL COINAGE.

SIR,—May I request the favour of your inserting, as an addendum to my Westminster lecture, the following tabular comparison between the number of figures required

under the present system of accountancy, and those of a decimal florin, based respectively on the *mil* and the *penny*, to represent every sum of money as entered in the books of bankers, merchants, &c., ascending in pence—the lowest term employed in such accounts. It will be seen from an inspection of this table that the plan recommended by the late Committee on Decimal Coinage presents a very undignified appearance as a “labour-saving” scheme, in this view of the subject, beside the penny plans, or even that now in use:—

All Sums of Money rising evenly in Pence.	Require in present system the following total numbers of Figures to express them.	In the proposed system of £1 divided into 1000 Mils.	In any of the proposed systems based upon the <i>Penny</i> .	Advantage of present system over Mils.	Advantage of a Penny basis over Mils. <sup>1</sup>	Advantage of a Penny basis over present system.
From 1d. to	£ s. d.	3	2	2	0	0
” ” ”	10	9	16	9	7	0
” ” ”	2 0	39	44	37	5	2
” ” ”	8 4	203	272	189	69	14
” ” ”	1 0 0	627	692	609	65	18
” ” ”	4 3 4	3893	3732	2889	339	504
” ” ”	10 0 0	8547	9382	8489	785	58
” ” ”	41 13 4	43973	47332	38889	3359	5084
” ” ”	100 0 0	109347	117332	108889	7985	458
” ” ”	416 13 4	539973	573332	488889	33359	51084
” ” ”	1000 0 0	1333347	141332	1328889	79985	4458
” ” ”	4166 13 4	6399973	673332	5888889	333359	511084
” ” ”	10000 0 0	15733347	1653332	15688889	799985	444443
” ” ”	41666 13 4	73999973	7733332	68888889	3333359	5111084
” ” ”	100000 0 0	18133347	1893332	18088889	7999985	4444443
” ” ”	416666 13 4	83999973	8733332	78888889	33333359	51111084
” ” ”	1000000 0 0	205333347	21333332	204888889	79999985	44444443

Thus it will be seen that the number of figures saved upon the sum of all figures below £100,000, by the use of decimal pence would be less than  $\frac{1}{2}$  per cent.; while the additional figures in the pound-and-mil system would amount to about  $4\frac{1}{2}$  per cent. On smaller sums, such as may be supposed to be entered in the books of tradesmen generally, the sum of all figures below £100, would give a saving of a little more than  $\frac{1}{2}$  per cent. for the penny, and an increase of nearly  $7\frac{1}{2}$  per cent. for the mil system. On still smaller sums, representing the dealings of retail traders, the sum of all figures below £10 would give for the decimal pence a saving rather more than  $\frac{1}{2}$  per cent., and for the pound-and-mil plan an increase of nearly  $9\frac{1}{2}$  per cent.

Yours obediently,  
FREDERIC JAMES MINASI.

Parkfield House, Islington, September, 1855.

SIR,—A copy of your paper of September 21 has just been forwarded to me, in which I find an answer from a “London Merchant” to my remarks of May 5, published by the Decimal Association, on his communication to the City article of the *Times* of May 3. On receiving it, I sat down to make some consideration of the question whether I should rejoin. The first passage I came to was the following:—“He challenges the advocates of the penny to produce their calculations in contrast with those of the £ and mil. We accept it; and shall take his own figures in illustration. What is the freight on 1,632 cwt. of cotton at 1*d.* per pound.” This made me suppose, of course, that I had proposed this question as a challenge, and I was about to cast my eye on the calculations following, when it was arrested by “Mr. Brown will inform the learned Professor that calculations like this are of constant occurrence in Liverpool.” It seemed so strange that I should be referred to Mr. Brown to justify my own

question to myself, that I hunted out a copy of my remarks, and found, to my amusement, that my critic has indeed taken *my own figures*, but has packed them into a question of his own choosing. My figures 1,632 occur in £1 6*fl.* 3*c.* 2*m.* Glancing further, I saw enough of this kind of proceeding to convince me that to answer this reply to my remarks I should find it necessary, after so long a lapse of time, to reprint a large portion of my remarks, and even of the article in the *Times*, on which they were made. My conclusion was, that neither my patience nor your space would last out an answer.

I am, sir, yours, &c.,  
A. DE MORGAN.

University College, October 1, 1855.

#### THE PENNY IN A DECIMAL SYSTEM.

With reference to a decimal currency, there is one fact which does not appear to have received sufficient attention from the advocates of the various schemes already before the public. I allude to the circumstance that in France and Holland, so often referred to as examples worthy of our imitation, the change of system did not interfere with what might be termed the *market units*. Thus the *sou* in the former country, and the *stiver* in the latter, still remain the measures of value in small transactions, and are likely long to continue so. For instance, a Frenchman calculates the price of a joint of meat by *sous* rather than by centimes, and speaks of 9lbs. at 13 *sous*, in preference to 65 *centimes* a lb. In reality, the adoption of a decimal notation by the French and Dutch was a much easier business than is generally imagined. No alteration had to be made in the value of a single coin, and the *sous* and *stiver* were merely deprived of their separate columns in account-books by being entered as *five-hundredths* instead of *one-twentieth* of the franc and florin respectively.

Now with us the chief obstacle in the way of a decimal system is that our "market unit," the penny, does not happen to be in decimal relationship with the other coins of account; consequently, the desired change cannot be accomplished so easily as in the countries mentioned. To sacrifice the penny is indeed out of the question, since to insist on the whole nation going to market and purchasing at the rate of, say, 29 mils instead of sevenpence a lb., would be a step in legislation such as the great Napoleon himself would hardly have attempted.

Whatever alteration we make, the penny must remain intact. In the *Journal* of September 21st, I have shown that by legalising the fifth of a shilling as the elementary unit of account, the gold and silver currency would be completely decimalised. There seems to be but one other feasible plan, namely, the issue of a new coin, in value 20 pence, its hundredth, the fifth of a penny, being the elementary unit. This would give the penny a corresponding position, in a decimal system, with that of the French sous and the Dutch stiver. The shilling would accordingly appear in accounts as 60 units, and the pound as 1,200 units. The principal objection to this plan is that the omission of the pound from the decimal scale would probably lead to its abandonment as our commercial unit. This scheme may, however, be found deserving of consideration as possessing advantages in addition to those afforded by the "tenpenny system."

I am, sir, yours, &c.,  
SAMUEL A. GOOD.

H. M. Dockyard, Pembroke Dock,  
1st October, 1855.

#### THE SOCIETY'S VISIT TO PARIS.

##### ARCHÆOLOGICAL MUSEUMS AND MONUMENTS.

SIR,—The visit of the Society of Arts to Paris cannot but be productive of good—for not only has it been the cause of some visiting the fair city for the first time, but also the cause of others examining familiar monuments with greater care. It will open many eyes to things hidden. The magnificent quays and clear Seine show how neglectful we are of our nobler Thames, choking both stream and strand, the one with the refuse of our vast metropolis, the other with crazy tenements and irregular wharves that have grown without regard to order or public convenience at the demand of individual requirements—carrying our conservative feeling to an inconvenient extent, every one doing as he pleases with his own, regardless of the pleasures of his neighbour.

The French, unlike us, know how to destroy and preserve. They, with material resources far inferior to our own, are fast making Paris the most beautiful city in the world; not only building and beautifying, but adapting and restoring with great judgment, though in some cases simple preservation would, perhaps, have been preferable to restoration. The adaptation displayed in some of their buildings is very remarkable. The dome Church of the Invalides into the tomb of Napoleon; the isolated tower of Saint Jaques de la Boucherie into a sanctuary to the memory of Blaise Pascal; and the Chapel of Saint Martin des Champs, at the Conservatoire des Arts et Métiers, into a receptacle for machinery in motion, is, to say the least of it, passing strange.

That we may have a promenade along the silver river prior to our turning Henry VIII's chapel into an engine-house I do not doubt; but how many Colonel Trenches will lay plans for a Thames quay before Parliament, and future John Martins sketch Babylonian wharves and terraces over sewers of gigantic proportions ere we get a limpid stream at London-bridge, time only knows—for both Martin and Trench's schemes are ancient now—worthy of being deposited in some mediæval museum like that of Cluny, if we had such an institution? Have we not treasures of the middle-ages in abundance, and buildings, in themselves monuments, worthy to contain such jewels. What has the second society of *savants* in

London done to promote such a museum? Would it not have been a worthy endeavour for the Society of Antiquaries from their lodgings in the Royal Palace of Somerset House to watch and ward that great historical monument, the Tower of London, and prevent at least some of the cruel alterations effected there; using every endeavour to convert it into a national museum—a worthy rival of the Hotel de Cluny and the Palais des Thermes? Had the Tower existed amongst the military French, I doubt if they would have endangered any part by storing powder therein, as I understand we do, and have done for years. The Society of Arts deserves great credit for their efforts to found a mediæval museum—not alone by urging Government to purchase the Bernal Collection, but by collecting within their own walls one of the most remarkable exhibitions of the art workmanship of the middle ages as a precursor of the Exhibition of 1851. The liberal donation of Mr. Ruskin to the Society of Antiquaries for the purpose of preventing injudicious "restorations," will do good; but what the public most desire of the curators of the past is that it should be opened up and made patent to the present, as in France.

I am, sir, yours, &c.,  
F.S.A., AND MEMBER OF THE SOCIETY OF ARTS.

#### STRENGTH OF MATERIALS.

Wallington, Newcastle-on-Tyne, 23rd Sept., 1855.

SIR,—As we know that a ship's mast constructed of several pieces of wood is stronger than when made of one piece only, so it might be supposed that an axle made of several pieces of metal might be stronger than one as usually made, of a single piece; and it is possible that, if made of several pieces, especially if they were of different metals, the same molecular change, whether resulting from the effects of vibration, or from any other cause, would probably not take place simultaneously in all the pieces of metal, and thus, [perhaps], some of the accidents occasioned by the change might be guarded against. Can you inform me whether, in experiments on the strength of materials, any have been made on the comparative strength of a bar or axle of iron and bundles of wires of different sizes, but containing the same weight of metal as the solid bar? They probably have; but, if not, I would suggest the importance of such experiments.

I remain, Sir, yours faithfully,  
W. C. TREVELYAN, Bart.

#### Proceedings of Institutions.

CORFE CASTLE.—The Mutual Improvement Society of this place is progressing favourably, and has now completed its fourth anniversary. The accounts for the past year show a small balance in the hands of the treasurer. The library has been increased, and the number of books now amounts to 400 volumes. The Society is placed in connection with the Society of Arts, London, from which much valuable information is derived. The reading-room is supplied with the leading periodicals of the day and the London and provincial newspapers. During the past season several instructive lectures have been delivered. The grateful thanks of the members are due to the nobility, clergy, and gentry of the neighbourhood, through whose kind and continued assistance they are enabled to enjoy those benefits at a low rate of contribution. The Society is patronised by the Right Hon. the Earl of Eldon, the Right Hon. George Bankes, the Lady Scott, the Revs. Edward Bankes, Eldon S. Bankes, Nathaniel Bond, O. L. Mansel; O. W. Farrer, Esq., A. Bell, J. H. Calcraft, T. Bond, J. Crouch, W. Voss, G. Mayo, R. Taylor, J. Voss, W. J. Pike, J. W. Pike, J. Oldham, Esquires, Colonel Mansell, &c.

ISLINGTON.—An exceedingly interesting meeting was held in the theatre of the Literary and Scientific Society

on Thursday evening, the 27th ult., for the purpose of presenting a testimonial to Mr. Joseph Simpson, on the occasion of his retirement from the office of librarian. The attendance was numerous. The chair was occupied by Charles Woodward, Esq., F.R.S., (President of the Institution), who, while he congratulated Mr. Simpson upon the improvement of his position and prospects by his removal, expressed his deep regret at the loss the Society would sustain thereby. He then, in a highly-complimentary manner, bore testimony, from his own personal observation, to the zeal and ability displayed by Mr. Simpson in the discharge of his duties during the eight years he had been connected with the Society; and after assuring him that he left with his own best wishes, and with those of all the members, for the success of his future plans, presented him, in the name of the officers of the Society and the subscribers, with a very handsome timepiece, and a purse of £30, the proceeds of a subscription entered into with a view of expressing their very high sense of the efficient, yet unassuming manner in which the diversified and onerous duties of his office had been invariably performed. Mr. Simpson expressed the great gratification afforded him by the proceedings; stated the circumstances which led to his resignation; and warmly thanked the officers and members of the Society, not only for their parting gifts, but also for the many previous acts of kindness which he had received from them. He assured them that the recollection of that evening, and the associations connected with his residence in Islington, would be cherished till life's latest day with feelings of lively gratitude; and after wishing them, individually, and as a Society, every prosperity, with much feeling, he bade them—farewell. The timepiece (the value of which is £14) is of bronze and gold, and was manufactured by Mr. Hislop. It bears the following inscription:—"Presented with a Purse of £30, by the President, Vice-Presidents, Committee, and 182 Members of the Islington Literary and Scientific Society, to Mr. Joseph Simpson, on his retirement from the office of Librarian, as a testimonial of their high approval of his zealous, faithful, and valuable services during a period of eight years.—27th September, 1855."

MUCH WENLOCK.—On Wednesday, the 12th ult., the Olympic Class in connection with the Agricultural Reading Society met upon the Race-ground for athletic exercises. On the following Friday, a magnificent collection of botanical specimens, got together by the indefatigable zeal of the members, illustrative of the Flora of the neighbourhood, was exhibited in the large room of the Institution, over the New Corn Market. The glorious weather afforded the desired opportunity of exhibiting the rustic sports and trials of strength and skill which the Agricultural Reading Society has promoted by offering prizes to the successful competitors. The Society itself has proved a very successful experiment,—so successful, that it has been determined to enlarge, next spring, the building now devoted to the convenience of its members, by the addition of a corn-market office, and a room above for a museum of objects of local interest. The cost of erection will be £300, out of which £135 has been already received in the shape of subscriptions. The Society develops itself in classes, thus, the "Music class," the "Local Antiquities class," the "Natural History of the Neighbourhood class," and the "Olympic class," the last mentioned being the one whose feasts the fine weather of Wednesday tempted a large number of the residents of the neighbourhood to the race ground to witness. The money given away is raised by subscription, and the average amount of subscription has been, each year, £20, but this year that amount has been exceeded by some pounds. The grand-stand was occupied by a number of ladies and gentlemen, and was decorated with laurels, flowers, banners, and flags, interspersed with appropriate mottoes. The attendance of spectators from the town and the country round, although small in the morning, far exceeded in the afternoon that of the pre-

vious years. The "games" commenced about ten o'clock, and men and boys seemed to enter with spirit and enjoyment into the old English sports which were revived on the occasion. The jumping was spirited, and the race by the boys under 14 excited great amusement, all the formulae of a regular horse-race being gone through on the occasion. The successful little competitor won by "two lengths," at least. The game at prison-bars also excited much merriment, both among the players themselves and the lookers on. There were eight entries for the wheelbarrow race, which afforded much amusement, owing to the tortuous circuit by which many of the blindfolded candidates approached the goal. The winner was John Skett, who completed his performance by a summersault into the hedge at the end of the field. At one o'clock the proceedings were suspended for two hours, but at three o'clock the men returned to the sports with increased energy and increased good humour. There was a foot-ball match, £2 winning side. The field in which the match was played was a very large one, and the fun was very fine; the match being well-contested, and not won till after near half-an-hour's sport. This game was followed by a foot hurdle race, splendidly run round the entire course, and almost as exciting as a horse-race itself. Badger, the Wolverhampton pedestrian, won, clearing the hurdles and coming in in gallant style. Shingler, a Wenlock man, winning the second prize of ten shillings. The games concluded, between six and seven in the evening, with a jingling match in a large rope ring, in which 20 blind-folded competitors for the prize made many ineffectual attempts to catch the jingler, who by ringing a small bell, attracted them successively to various parts of the ring, and slipped aside adroitly as they approached him, to the great merriment of the circle of spectators. After a country-dance on the field, the members of the class, accompanied by a great number of the visitors, returned in procession, accompanied by the band, to the Corn Market, where the president of the class, W. P. Brookes, Esq., previous to the distribution of the prizes, addressed the company. He said:—"The yearly increase, both in the funds of your Society and in the number of visitors who attend your annual meetings, afford the most satisfactory evidence of the estimation in which your games are held; and the spirited manner in which you have on this and former occasions contended for the prizes, humble as they were, renders it unnecessary for me to address you for the purpose of exciting your zeal and perseverance in favour of an Institution which has already been a source of so much benefit and pleasure to the working classes of this neighbourhood. You would not, however, I am sure, feel satisfied were we to part without expressing our grateful sense of the kindness of Mr. Crowther in placing his meadows at our disposal, and also to Mr. Ainsworth for the offer of his field on the other side of the town. In the present day, when nearly every spot of ground in the vicinity of a town is enclosed, and, doubtless, advantageously so, for the purposes of agriculture, the poor would lose much recreation were the occupiers of land not to act with that consideration and kindness which Mr. Crowther has evinced on the present occasion. To another class of benefactors, too, you would wish publicly to offer your thanks—I mean to the honorary subscribers to your games. It would be invidious to mention names, as they include nearly all the nobility and gentry of this immediate neighbourhood. Nothing can be more pleasing than to find the affluent in circumstances coming forward, by their subscriptions, to aid in the improvement and innocent amusements of those in a humbler sphere of life, and whose unassisted efforts would not be sufficient to procure for them these advantages and pleasures. \* \* \* \* \* Which of us would send a boy to a public school were he confined all day to the desk, and debarred that exercise which is so essential for the healthy development of the body. The inhabitants of Wenlock must, I feel sure, have been highly gratified the other day in witnessing the skill,

activity, and cheerfulness displayed by those fine youths from Dr. Kennedy's school at Shrewsbury, who came to contend with the Wenlock Cricket Club, a separate branch of athletics, one which requires much practice, and which has been carried out so successfully and with so much honour to the town and neighbourhood of Wenlock by Mr. James, the hon. secretary, to whom great credit is due for his exertions in its behalf. I cannot conclude without expressing a hope that you will ever retain undiminished your love for our manly old English sports, that make us cheerful, active, and healthy, and promote that harmony and good feeling among the different classes which so distinguish the inhabitants of this town and neighbourhood. In after years you will look back with pleasure on these social gatherings, and regard them as sunny spots in the memory of the past. I have great pleasure in informing you that Mr. Slaney, of Walford Manor, has kindly sent a donation to this year's fund, and that you have the honour of adding to your list of honorary subscribers the name of Lord John Manners, who has consented to become an annual subscriber. I beg, therefore, to propose 'Three times three' for Lord J. Manners, who, as well as Mr. Slaney, is a warm advocate of those societies which have for their object either the moral and intellectual improvement, or the innocent recreation of the working classes. I have also to propose, what I am sure you will heartily respond to, viz., 'Three times three' for Sir Watkin, to whose kindness and liberality, in giving us the site on which the Corn Market and reading-room are built, we owe so much of the happiness we enjoy." The president concluded amid much applause, and then proceeded to distribute the prizes, addressing to each of the successful candidates some appropriate remarks of approbation and encouragement. Dancing then commenced, and was continued till twelve o'clock with the greatest order and propriety, and thus brought to a conclusion a day which will long be remembered by the inhabitants of Wenlock. The decisions of the umpire were as follows:—Quoits (thrown 21 yards), first prize, 5s., W. Theobald; second, 2s. 6d., W. Ward. Leaping in height, 5s., G. Theobald, who jumped 4 feet 2 inches. Leaping in distance, 5s., W. Badger, Wolverhampton. Foot race for boys under 14 years of age, first, a book value 3s. 6d., Evan Morrison; second, value 1s. 6d., George Thomas. Foot hurdle race, first, £1, W. Jones; second, 5s., Joseph Hickman. Foot race for boys under 10 years of age, first prize to have an olive crown and a book, value 3s. 6d., E. Roberts; second, book, value 1s. 6d., J. Massey. Wheelbarrow race (five to start), first, 10s., G. Skitt; second, 2s. 6d., J. Rowley. Foot hurdle race, all round the course, first, £2, B. Badger; second, 10s., —Shingler. the prison base match was £1 a side, and the foot-ball match £2 a side. There were several other games played for minor sums. It is the intention of the committee to give far higher prizes next and succeeding years, as they find the subscriptions materially extending. The provision of a healthful and innocent means of recreation for the working classes is an object worthy of support, and the pleasant and amusing character of the day's proceedings would no doubt increase the popular favour of the "Olympic class." It may reasonably be expected that an augmentation of patronage and an increased attendance of visitors will take place at the future exhibition of the games. The neighbourhood have reason to congratulate, and the working men to thank, Mr. Brookes, for his successful efforts in promoting this, in common with other useful objects of the Wenlock Agricultural Reading Society.—On the following Friday, the exhibition of beautifully preserved specimens of the wild plants and flowers growing round Wenlock took place. It is to be regretted that only 300 out of 600 specimens collected this year by the Wenlock Agricultural Reading Society could be shown for want of space. This inconvenience is in a fair way to be obviated next spring, by the subscription entered into for the purpose of building the corn-market office, with a room over it for the museum of ob-

jects of local interest, and which is every day receiving accessions, which will shortly render it extremely attractive. The sum required is only £300, of which £135 has been subscribed; C. O. C. Pemberton, Esq., of Millchope-hall, and W. H. Sparrow, Esq., of Wolverhampton, have each contributed £5 during the last few days, and their example will be followed by others, for there are few towns of the same size and population where the inhabitants have, by their unanimity and perseverance, accomplished so much for the improvement of themselves and those who will come after them. Such exertions deserve to be encouraged, and, doubtless, the undertaking will receive the cordial support of all the well-wishers to this spirited and improving town. W. P. Brookes, Esq., surgeon, has consented to act as secretary to the committee, and also to receive the subscriptions.

NORTHAMPTON.—A soirée was held by the Northamptonshire Religious and Useful Knowledge Society on Monday evening, the 20th of September. Possessing convenient premises, with easy communication to the spacious parochial school rooms, and availing themselves largely of the gratuitous and able services of many kind friends, the committee were enabled to provide an entertainment abundantly varied. Much money and time, too, had been spent in preparation. When it is considered that, not only the handsome lecture hall was occupied, but that four other rooms—two of them as large as the lecture hall—were put in requisition, the magnitude of the affair, and the labour and anxiety involved, will be at once apparent. Much was attempted, but all was accomplished, and visitors had ample reason to be satisfied with almost everything but the fearful crushing which the crowds that thronged the place frequently rendered inevitable. Commencing at the entrance to the building, banners were seen waving, and a new and elegant lamp suspended over the portal. The lecture hall was adorned with evergreens and choice flowers, kindly supplied by Sir Charles Wake, E. Bouverie, Esq., R. T. Clarke, Esq., G. Osborn, Esq.; Messrs. Perkins, Jeyses, Smith (Roade), G. West (Dallington), Holliday and Archer (Northampton), &c. In one part was R. T. Clarke, Esq., with his valuable collection of plants, engaged in giving illustrations of economic botany. In another direction the Rev. C. F. Luttrell West and Mr. Dorman were surrounded with electric telegraph apparatus, gratuitously supplied by the Electric Telegraph Company, with clerks to work it; Mr. Dorman's illustrative diagrams, and Mr. West's explanations, kept a knot of interested listeners round the table. Mr. H. M. Grenville, who was to have been present, and "at home" in his interesting experiments in pneumatic chemistry, was prevented by severe illness from attending. Proceeding onwards, the boys' school was decorated with flowers and evergreens, the walls covered with a series of architectural illustrations (by Mr. E. F. Law, of this town), executed in sepia, on a large scale, illustrative of the works of antiquity in Egypt, Greece, and Rome, and the entire mediæval period in this country. A large orchestra was erected at one end of the room, and at the other a stage for electrical apparatus, presided over by Mr. E. F. Law, with ability and untiring energy. Around the room were ranged numerous cases of insects, illustrative of British entomology, belonging to the Rev. Hamlet Clark, by whom they had been collected and preserved with infinite care. These were to have been explained by that gentleman, but, unfortunately, he had not sufficiently recovered from illness to justify his undertaking the task. As it was, however, they proved a source of considerable attraction. Crossing over into the girls' school-room, the portfolio of Mr. E. F. Law again contributed most liberally to the decoration of the place, the walls being hung all around with original water-colour sketches, ecclesiastical, domestic, and landscape, not a few of them displaying considerable taste and ability in execution. Here again a profusion of choice plants met and pleased the eye. In this room, too, were located the Revs. W. Law, of

Marston, and J. Thornton, of Kimbolton, both gentlemen favourably known to the scientific world. Mr. Law was experimenting most interestingly with his magnetic apparatus, and Mr. Thornton was affording much amusement by his illustrations of microscopy. In the first infant school was displayed a large and beautiful collection of photographs, supplied by the Society of Arts, of London, the Rev. F. A. S. Marshall, of Peterborough, and, through that gentleman, by Messrs. Herring and Rymington, of London. The photographs were much admired. There was also a large painting of Queen Victoria, about 10ft. by 6ft., by Mr. E. F. Law, lent for the occasion by Mr. Osborn. The second infant school was devoted to refreshments. Over and above this, there was an efficient band provided from the Choral Society, which performed in the boys' school-room, and there was vocal music in that and in all the other rooms in succession. The leadership of the band was confided to Mr. Packer; the whole being under the able direction of Mr. Charles M'Korkell, who, in the course of the evening, treated the company to a solo on the pianoforte. Miss Ransford was the principal vocalist. She was in excellent voice, and sang admirably. Miss Ransford sang a second time Bishop's lovely song, "Bid me discourse," and the orchestra spiritedly repeated Bishop's animating "Tramp" chorus. Mr. Wickes sang several songs with good effect. Mr. Aylward, an accomplished player on the violoncello, played two solos on that instrument. The entertainments commenced at seven o'clock, and terminated at half-past ten, not fewer than from fourteen to fifteen hundred persons, including the principal inhabitants of the town, being present. The success attending this first essay was so great, that the committee determined on having a second entertainment at a uniform low charge of sixpence per head, the lecturers, who deserve all praise, kindly volunteering a repetition of their services.

## Miscellanæ.

**BIRMINGHAM GUN TRADE.**—The discussions which took place during the last and the present year, with respect to the quality and quantity of fire-arms which Birmingham could produce, has operated advantageously upon both the makers and the operatives. It is now proposed to establish a gun-makers' guild. The object of this association is stated to be the obtaining of specimens of important gun manufactures, statistical accounts from other countries, information as to other new markets which might be opened, &c. It is proposed also that lectures should be delivered on the nature of gunpowder, illustrative of improvements in all branches of the trade, &c.; Birmingham, it is contended, will then be better able to enter into competition with other countries. The proposition has been well received, and is likely to be adopted.

## To Correspondents.

A letter on the subject of "Decimal Coinage" has been received from Mr. Theo. W. Rathbone, and will appear next week.

## PATENT LAW AMENDMENT ACT, 1852.

### APPLICATIONS FOR PATENTS AND PROTECTION ALLOWED.

[From Gazette September 28th, 1855.]

Dated 28th May, 1855.

1218. J. Leese, jun., Manchester—Obtaining colouring matter.

Dated 21st July, 1855.

1648. W. Striby, Weinheim, Baden—Musical notation.

Dated 1st September, 1855.

1971. M. Butcher and T. H. Newby, Birmingham—Bobbins used in winding, twisting, weaving, &c.

1973. T. Dodds, 53, Wigmore street, Cavendish-square—Heating furnaces with coal or other gases.

1975. F. C. Calvert, Manchester—Heating, puddling, and refinery iron slags.  
 1977. T. S. Prideaux, Willow-house, Hampstead—Marine steam boiler furnaces and flues.  
 1979. A. V. Nevton, 66, Chancery-lane—Gas for illumination. (A communication.)

Dated 3rd September, 1855.

1981. W. McLiesh, Belfast—Boiler furnaces, and prevention of smoke.  
 1982. A. Heaven, Manchester—Embroidering fabrics.  
 1983. G. T. Holden and R. Nicholas, Brook-street, St. Paul's, Birmingham—Roasting-jack.  
 1985. J. T. Chance and H. Adcock, Birmingham—Casting articles of slags produced by the smelting of iron and other ores.  
 1987. E. Sy, Paris—Motive power.  
 1989. H. E. Flynn, Retreat, Ranelagh, Dublin—Prevention of railway accidents.  
 1991. J. Humby, 47, Little Britain—Machine for cutting vegetables.  
 1993. A. H. Golding, Maidstone—Apparatus for blocking and lasting leather.

Dated 4th September, 1855.

1995. C. Clark and J. Clark, Street, Glastonbury—Boots and shoes.  
 1997. J. G. Taylor, Glasgow—Coating or plating metallic surfaces.  
 1999. T. T. Coniam, Chagford, Devon—Tiles for roofing.  
 2001. C. G. Mueller, South Carolina, U.S.—Locks for doors.  
 2003. W. A. Gilbee, 4, South-street, Finsbury—Manufacture of glass. (A communication.)  
 2005. W. Southwell, Philadelphia, U.S.—Machinery for grinding or polishing saws and other articles.

Dated 5th September, 1855.

2007. G. H. Ingall, Bartholomew-lane—Self-acting signal-posts and apparatus.  
 2009. G. Collier, Halifax—Carpets.  
 2011. J. H. Glassford, Glasgow—Printing textile fabrics.  
 2013. J. G. Martien, Newark, New Jersey, U.S.—Roasting, calcining, oxydizing, and subliming metallic and mineral substances.

Dated 6th September, 1855.

2015. S. A. Goddard, Birmingham—Preventing the fouling of firearms, and cleaning the same.  
 2017. C. P. Aston, Cross-street, London—Breech-loading arms.

Dated 7th September, 1855.

2021. G. Lowry, Manchester—Machinery for heckling flax, &c.  
 2023. F. Garand, Paris—Machinery for cutting veneers.  
 2025. N. Templeton and D. Miller, Glasgow—Manufacture of figured fabrics.  
 2027. J. McIntyre, Jarrow-upon-Tyne, Durham—Caulking decks, ceilings, and floors.  
 2029. L. P. Reynaud, Paris—Endless stair crane.

Dated 8th September, 1855.

2031. E. H. Rascol, Catherine-street, Strand—Fastening for wearing apparel as a substitute for buttons. (A communication.)  
 2033. J. H. Tuck, Pall-mall—Dredging and excavating machinery. (A communication.)  
 2035. T. H. and W. Hemsley, Melbourne, Derbyshire—Fabrics in warp and twist lace machines.  
 2037. J. Bird, Seymour-street West—Manufacture of biscuits.  
 2039. P. A. Balestrini, Brescia, Lombardy—Insulating wires for electric telegraphs.  
 2041. A. Robertson, Nether Holhouse, Neilston, Renfrew—Treatment, cleansing, and finishing of textile fabrics.  
 2043. E. Grenet, Jun., Paris—Electro-magnetic apparatus for motive-power.  
 2045. T. Allan, Adelphi-terrace—Correcting deviation of the compass needle.

Dated 10th September, 1855.

2050. A. E. L. Belliford, 32, Essex-street, Strand—Governor for steam engines. (A communication.)

Dated 13th September, 1855.

2066. J. Macintosh, Great Ormond-street—Metallic and other pens.  
 2072. J. Hartmann, Mulhouse, France—Colours for printing stuffs and textile fabrics.  
 2074. W. Church, Birmingham—Mounting ordnance and other firearms.  
 2076. V. Scully and B. J. Heywood, Dublin—Bottles, inkstands, &c., and in caps for closing the same.  
 2078. F. Stocken, 5, Halkin-street, Belgrave-square—Carriage springs.

Dated 15th September, 1855.

2080. W. Oxley, Manchester—Machinery for washing.  
 2082. J. G. Martien, Newark, New Jersey, U.S.—Manufacture of iron and steel.  
 2084. V. Scully and B. J. Heywood, Dublin—Manufacture of articles subject to corrosion.  
 2086. W. Sangster, Cheapside—Stays and corsets.  
 2088. D. Zinner, Newcastle-upon-Tyne—Washing and separating pulverised ores and matters. (A communication.)  
 2090. A. Ford, St. James's, Middlesex—Solutions of caoutchouc, gutta percha, &c.

Dated 17th September, 1855.

2092. J. Lewtas, Manchester—Apparatus for holding and letting go cords, chains, or bands.

2094. T. Forsyth, Manchester—Treatment of scrap iron.  
 2095. W. H. Smith, Birmingham—Bolts, latches, and locks.  
 2098. J. T. Caird, Greenock—Steam engines.  
 2102. R. A. Broome, 166, Fleet-street—Raw silk. (A communication.)

Dated 18th September, 1855.

2106. R. A. Broome, 166, Fleet-street—Knitting machinery. (A communication.)  
 2108. F. H. Smith, Ludgate-hill—Break for carriages with poles.  
 2110. W. Warren, Regent-place, Birmingham—Vices.

Dated 19th September, 1855.

2112. L. Cornides, 4, Trafalgar-square, Charing-cross—Impressions of prints or drawings, and in transferring, printing, and colouring, or ornamenting the same on glass or other surfaces.  
 2114. S. Coulson, Sheffield—Ornamented metal tea-pots, &c.  
 2116. R. A. Broome, 166, Fleet-street—Preserving animal and vegetable substances. (A communication.)

#### WEEKLY LIST OF PATENTS SEALED.

Sealed September 28th, 1855.

695. François Joseph Anger, 16, Stamford-street, Blackfriars-road—Improvements in the preservation of vegetable substances.  
 704. William James, Crosby-hall Chambers—Improvements in the manufacture of screw bolts.  
 727. Thomas Hedcock, R.N., 7, Cavendish-grove, Wandsworth-road—Improved quadrant for taking solar altitudes for latitude without aid of marine horizon, and for ascertaining the true longitude.  
 731. John Taylor, Spring-grove, Hounslow—Improvement in the manufacture of covers for books.  
 748. Henry Richardson Fanshawe and John Americus Fanshawe, North Woolwich—Improvements in the manufacture of waterproof fabrics of the vulcanised, sulphurised, or cured class.  
 806. Soren Ijorth, Copenhagen—An improved magneto-electric battery.  
 808. Soren Ijorth, Copenhagen—An improved electro-magnetic machine.  
 811. Isaiah Vernon, West Bromwich—Improvement or improvements in the slide valves of steam engines.  
 830. Gustave Ireneé Sculfort, Mauberge, France—Improvement in screw wrenches.  
 849. Henry Woodhouse, Stafford—Improvements in the construction of crossings for the permanent way of railways.  
 1116. William Johnson, 47, Lincoln's-inn-fields—Improvements in the manufacture, treatment, and application of oily, resinous, and gummy substances and soaps.  
 1212. Edward George Swinton, Warsash-house, near Titchfield—Improvements in applying motive power for grinding corn and for other similar purposes.  
 1255. John Charles Pellenz, Aix la Chapelle, Prussia—Improvements in the manufacture of iron wheels.  
 1370. John Harvey Sadler—Lady Pitt-lane, Hunslet, Leeds—Improvements in looms for weaving.  
 1507. James Connor, Coventry—Improvements in apparatus for communicating between the engine drivers and the guards of railway trains.  
 1662. Henry William Ripley, Bradford—Improvements in dressing and finishing woven fabrics composed wholly or partly of wool. (Partly a communication.)  
 1752. Richard Albert Tilghman, Philadelphia, U.S.—Improvements in the manufacture of candles.  
 1798. Charles Frederick Thomas, Massachusetts, U.S.—Improvements in boilers for steam carriages.

Sealed October 2nd, 1855.

729. Frederick Phillips, Hall Farm, Downham, near Brandon, Suffolk—Improvements in machinery or apparatus for distributing manure, sowing or depositing seeds, and effecting the working and cultivation of land.  
 737. François Theodore Botta, Paris—Improvements in the method of and apparatus for beer brewing.  
 742. Hiram Powers, Florence—Forming perforations or throats to the cutting edges of files or rasps for allowing the particles cut away to pass through, and to prevent the instrument from clogging or choking.  
 743. William Henry Tooth, 2, Pilgrim-street, Kensington-lane—Improvements in the construction of floating vessels, and in the machinery and steam signals connected therewith, and in the application thereof to other purposes.  
 744. William Eathorne Gill, Totnes, and Henry Brinsley Sheridan, Parsons-green—Treating fish for oil, and utilising the products of such process.  
 745. Louis Cornides, 4, Trafalgar-square, Charing-cross—Improvements in saturating and coating or covering leather, paper,

and textile fabrics, so as to render the same on the coated or covered surfaces thereof impervious to water.

753. John Crowley, Sheffield—Improvements in the manufacture of malleable cast iron.

#### PATENTS ON WHICH THE THIRD YEAR'S STAMP DUTY HAS BEEN PAID.

56. John Finlay, Glasgow—Improvements in grates and fireplaces, or apparatus for the generation of heat.  
 70. Robert Lakin, Ardwick, and William Henry Rhodes, Gorton—Improvements in machines for spinning and doubling cotton and other fibrous substances.  
 81. Frederick Osborn, Albion-street, King's-cross—A machine or apparatus for facilitating the manufacture of various kinds of garments or wearing apparel.  
 84. Edwin Pettitt, Kingsland—Improvements in the manufacture of ammoniacal salts and manures.  
 115. Charles John Carr, Belper—Improvements in machinery for making bricks and other similar articles.  
 136. William George Nixey, Moor-street—Improvements in tills and other receptacles for money.  
 187. Alexander Miller, Glasgow—Improvements in the treatment or finish of textile fabrics and materials.  
 214. Thomas Kennedy, Kilmarnock—Improvements in obtaining and applying motive-power, which improvements or parts thereof are applicable to timekeepers and clockwork, and for measuring and registering the flow of water and other fluids and aeriform bodies.  
 216. Archibald Brown, Glasgow—Improvements in the construction of sheaves for blocks.  
 246. George Hallen Cottam, Charles-street, Hampstead-road—Improvements in chairs, sofas, and bedsteads.  
 278. William Adolph, 9, Bury-court, St. Mary Axe—Improvements in apparatus for warming and ventilating rooms.  
 285. Edwin Pettitt, Kingsland, and James Forsyth, Caldbeck—Improvements in spinning and drawing cotton and other fibrous substances, and in machinery for that purpose.  
 290. William Horstfield, Swillington Mills, near Leeds—Improvements in splitting, crushing, and grinding corn, seeds, grain, minerals, or other substances.  
 371. Walter McFarlane, Glasgow—Improvements in water-closets.  
 565. William Henry Fox Talbot, Lacock Abbey, Wilts—Improvements in the art of engraving.  
 710. James Noble, Leeds—Improvements in combing wool and other fibres.  
 908. Francis William Ellington, Drummond-street, Euston-square—Improvements in the making of screws for collapsible and other vessels.  
 9. George Green, Mile-end-road—Improvements in the manufacture of casks.  
 11. Thomas Wood Gray, Warkworth-terrace, Commercial-road, Limehouse—Improvements in cocks and valves.  
 40. Frederick Richard Holl, Weymouth-terrace, City-road—Improvements in watches and chronometers.  
 51. Thomas Craddock, Ranelagh Works, Thames-bank—Improvements in the steam-engine and the steam-boiler.  
 64. Henry Richardson Fanshawe, Arthur-street, Old Kent-road—Improvements in shawls, scarfs, neckerchiefs, handkerchiefs, mantles, sails or sail-cloth, table cloths and table-covers, napkins, and umbrella and parasol tops and covers, and in an improved loom for weaving, applicable especially to the said improvements in respect to some of the said articles.  
 71. John Ambrose Coffey, Providence-row, Finsbury—Improvements in apparatus for performing various chemical and pharmaceutical operations, hereby denominated Coffey's Improved Patent Esculapian Apparatus, parts whereof are applicable to steam-boilers, steam and liquid gauges, stills, and syphons.  
 74. Christopher Kingsford, 18, Buckingham-street, Adelphi—Machinery for solidifying peat, coal, and other substances of a like nature.  
 86. David Dunne Kyle, 120, Albany street, Regent's-park—Improved method of excavating and removing earth.  
 110. John Wright and Edwin Sturge, Cornhill-road, Lambeth—Improved machinery for the manufacture of envelopes.  
 137. Arthur Jackson, Exchange-court, Liverpool—Improvements in gas-burners.  
 140. Thomas Robson, Woolwich-road—Improvements in apparatus for igniting signal and other lights.  
 141. Astley Paston Price, Margate—Improvements in the manufacture of citric and tartaric acids, and of certain salts of potash, soda, ammonia, lime, and baryta.  
 165. Moses Poole, Serle-street—Improvements in constructing bridges, viaducts, and such-like structures.  
 272. Joseph Hill, Birmingham—A machine for stamping metals and forging iron and steel.

#### WEEKLY LIST OF DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

No. in the Register.	Date of Registration.	Title.	Proprietors' Name.	Address.
3762	September 27.	Focus Regulator .....	Woog Javal .....	13, Broad-street-buildings.
3763	October 1.	The Crimean Stove .....	James Burnett Haden .....	Warminster.